UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,215	08/03/2000	Krishna Balachandran	Balachandran-17-9-50	1173

7590 12/18/2003

TROUTMAN, SANDERS, MAYS & VALENTINE
1660 INTERNATIONAL DRIVE
SUITE 600, TYSONS CORNER
MCLEAN,, VA 22102

EXAMINER	
WILSON, ROBERT W	

ART UNIT	PAPER NUMBER
2661	3

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary	Application No. 09/632,215	Applicant(s) BALACHANDRAN ET AL.	
	Examiner Robert W Wilson	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 August 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.0 The application of Krishna Balachandran et al. for "METHODS AND DEVICES FOR SCHEDULING TRANSMISSIONS IN INTERFERENCE-LIMITED NETWORKS" filed 8/3/2000 has been examined. Claims 1-32 are pending.

Drawings

2.0 The drawings in this application are objected to by the Draftsperson as informal. Any drawing corrections requested, but not made in the prior application should be repeated in this application if such changes are still desired. If the drawings were changed and approved during the prosecution of the prior application, a petition may be filed under 37 CFR 1.182 requesting the transfer of such drawings, provided the parent application has been abandoned. However, a copy of the drawings as originally filed must be included in the 37 CFR 1.60 application papers to indicate the original content.

Claim Rejections - 35 USC § 102

3.0 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5.0 Claims 1-6, & 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamalainen et al. (U.S. Patent No.: 5,640,395).

Referring to **Claim 1**, Hamalainen et al. (U.S. Patent No.: 5,640,395) teaches: A device for scheduling transmissions in an interference-limited network (The specification defines interference-limited system as a cellular system per Pg 1 line 10. The system described in the reference is digital cellular system or interference-limited network per col. 1 lines 7-11. The base station or device has an access server which schedules available time slots between a mobile unit and a base station based upon priorities defined in the R slot or request slot per col. 9 lines 9-67)

Wherein the device is adapted to prioritize transmission request signals based on achievable data rates (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or device per col. 9 lines 9-67)

In Addition:

Regarding **Claim 2**, wherein the device is further adapted to assign a highest priority to a transmission request signal associated with a highest achievable data rate (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or highest achievable data rate by the base station or device per col.
9 lines 9-67)

Regarding **Claim 3**, wherein the device is further adapted to authorize a terminal unit associated with the highest achievable data rate to send a transmission (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile or terminal unit. The mobile station or terminal unit is granted or authorized as many slots as are free or achievable data rate by the base station or device or authorized to send a transmission per col. 9 lines 9-67)

Regarding **Claim 4**, wherein the device is further adapted to authorize a terminal unit associated with a prioritized transmission request signal to send a transmission (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or device or authorized to send a transmission per col. 9 lines 9-67)

Regarding **Claim 5,** wherein the device comprise a bandwidth allocation unit (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The

mobile station is granted as many slots as are free or achievable data rate by the base station or bandwidth allocation unit per col. 9 lines 9-67).

Regarding **Claim 6**, wherein the device comprises a multiplexer (The base station sends multiplexed signals down link as shown per Figs 1-10)

Regarding **Claim 10,** wherein the device is further adapted to assign a highest priority associated with a highest data rate (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or highest priority associated with a highest data rate per col. 9 lines 9-67).

Regarding **Claim 11**, wherein the device is further adapted to authorize a transmission to a terminal unit associated with the highest achievable data rate (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or highest priority associated with a highest data rate or authorize a transmission to a terminal unit associated with the highest achievable data rate per col. 9 lines 9-67).

Claim Rejections - 35 USC § 103

6.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.0 Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen (U.S. Patent No.: 5,640, 395) in view of Ganz et al (U.S. Patent No.: 6,049,549).

Referring to **Claims 7 & 8,** Hamalainen (U.S. Patent No.: 5,640, 395) teaches: The device as in claim 1,

Hammalainen does not expressly call for: Wherein the device is further adapted to periodically poll a data rate associated with a terminal unit within the network as claimed in **Claim 7** or wherein the device is further adapted to adjust a priority associated with the terminal unit based on the pooled data rate per **Claim 8.**

Ganz et al (U.S. Patent No.: 6,049,549) teaches: wherein the device is further adapted to periodically poll a data rate associated with a terminal unit within the network (Abstract or col 3 line 60-col 7 line 13) as claimed in **Claim 7** and wherein the device is further adapted to adjust a priority associated with the terminal unit based on the polled data rate (Abstract or col 3 line 60-col 7 line 13) as claimed in ***Claim 8.***

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the polling manager of Ganz to the base station device of Hammalainen in order to insure that bandwidth is managed efficiently per Abstract

Claim Rejections - 35 USC § 103

8.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9.0 Claims 9 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen (U.S. Patent No.: 5,640, 395).

Referring to **Claim 9**, Hamalainen (U.S. Patent No.: 5,640, 395) teaches: The device as in claim 1, wherein the device is further adapted to prioritize transmission test signals based on achievable data rates (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or device per col 9 lines 9-67)

Hamalainen does not expressly call for: test signals but teaches data signals per col. 9 lines 9-67

It would have been obvious to one of ordinary skill in the art at the time of the invention to prioritize transmission of test signals based upon the knowledge of prioritizing a data signal because a test signal is a type of data signal.

Referring to **Claim 12**, Hamalainen (U.S. Patent No.: 5,640, 395) teaches: The device as in Claim 9, wherein the device is further adapted to further authorize a transmission to a terminal unit associated with a prioritized transmission test signal (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is

granted as many slots as are free or achievable data rate by the base station or authorized per col. 9 lines 9-67)

Hamalainen does not expressly call for: test signals but teaches data signals per col. 9 lines 9-67

It would have been obvious to one of ordinary skill in the art at the time of the invention to prioritize transmission of test signals based upon the knowledge of prioritizing a data signal because a test signal is a type of data signal.

Referring to **Claim 13**, Hamalainen et al. (U.S. Patent No.: 5,640,395) teaches: A device for scheduling transmissions in an interference-limited network (The specification defines interference-limited system as a cellular system per Pg 1 line 10. The system described in the reference is digital cellular system or interference limited network per col. 1 lines 7-11. The base station or device has an access server which schedules available time slots between a mobile unit and base station based upon priorities defined in the R slot or request slot per col 9 lines 9-67)

Wherein the device is adapted to prioritize transmission test signals based on achievable data rates (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or device per col 9 lines 9-67)

In Addition:

Regarding **Claim 14**, wherein the device is further adapted to assign a highest priority to a transmission request signal associated with a highest achievable data rate (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or highest achievable data rate by the base station or device per col.
9 lines 9-67)

Regarding **Claim 15**, wherein the device is further adapted to authorize a terminal unit associated with the highest achievable data rate to send a transmission (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile or terminal unit. The mobile station or terminal unit is granted or authorized as many slots as are free or achievable data rate by the base station or device or authorized to send a transmission per col. 9 lines 9-67)

Regarding **Claim 16**, wherein the device is further adapted to authorize a terminal unit associated with a prioritized transmission request signal to send a transmission (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or device or authorized to send a transmission per col. 9 lines 9-67)

Regarding **Claim 17,** wherein the device comprise a bandwidth allocation unit (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or bandwidth allocation unit per col. 9 lines 9-67).

Regarding **Claim 18**, wherein the device comprises a multiplexer (The base station sends multiplexed signals down link as shown per Figs 1-10)

Hamalainen does not expressly call for: test signals but teaches data signals per col. 9 lines 9-67

It would have been obvious to one of ordinary skill in the art at the time of the invention to prioritize transmission of test signals based upon the knowledge of prioritizing a data signal because a test signal is a type of data signal.

Claim Rejections - 35 USC § 102

10.0 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11.0 Claims 19-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamalainen et al. (U.S. Patent No.: 5,640,395).

Referring to **Claim 19**, Hamalainen et al. (U.S. Patent No.: 5,640,395) teaches: A method for scheduling transmissions in an interference-limited network (The specification defines interference-limited system as a cellular system per Pg 1 line 10. The system described in the reference is digital cellular system or interference-limited network per col. 1 lines 7-11. The base station or device has an access server which schedules available time slots to a mobile unit based upon priorities defined in the R slot or request slot or device which prioritizes transmission request signals based on achievable data rates per col 9 lines 9-67) comprising:

Prioritizing transmission request signals based on achievable data rates (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate between a mobile station and a base station or device which prioritizes transmission request signals based on achievable data rates per col. 9 lines 9-67)

In Addition:

Regarding **Claim 20**, wherein the device is further adapted to assign a highest priority to a transmission request signal associated with a highest achievable data rate (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or highest achievable data rate by the base station or device per col.
9 lines 9-67)

Regarding **Claim 21**, wherein the device is further adapted to authorize a terminal unit associated with the highest achievable data rate to send a transmission (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile or terminal unit. The mobile station or terminal unit is granted or authorized as many slots as are free or achievable data rate by the base station or device or authorized to send a transmission based upon the highest achievable data rate per col. 9 lines 9-67)

Regarding **Claim 22**, wherein the device is further adapted to authorize a terminal unit associated with a prioritized transmission request signal to send a transmission (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or device or authorized to send a transmission per col. 9 lines 9-67)

Claim Rejections - 35 USC § 103

12.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13.0 Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen (U.S. Patent No.: 5,640, 395) in view of Ganz et al (U.S. Patent No.: 6,049,549).

Referring to **Claims 23, 24, & 25**, Hamalainen (U.S. Patent No.: 5,640, 395) teaches: The method as in Claim 19,

Hammalainen does not expressly call for: further comprising periodically polling a date rate associated with a terminal unit within the network as claimed in **Claim 23** or further comprising adjusting a priority associated with the terminal unit based on the polled data rate as claimed in **Claim 24** or further comprising prioritizing transmission test signals based on achievable data rates as claimed per **Claim 25**.

Ganz et al (U.S. Patent No.: 6,049,549) teaches: further comprising periodically polling a date rate associated with a terminal unit within the network (Abstract or col 3 line 60-col 7 line 13) as claimed in **Claim 23** or further comprising adjusting a priority associated with the terminal unit based on the polled data rate (Abstract or col 3 line 60-col 7 line 13) as claimed in **Claim 24** or further comprising prioritizing transmission test signals based on achievable data rates (Abstract or col 3 line 60-col 7 line 13) as claimed per **Claim 25.**

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the polling manager of Ganz to the base station device of Hammalainen in order to insure that bandwidth is managed efficiently per Abstract

Claim Rejections - 35 USC § 103

14.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15.0 Claims 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen (U.S. Patent No.: 5,640, 395).

Referring to **Claims 26, 27, & 28**, Hamalainen (U.S. Patent No.: 5,640, 395) teaches: The method as in Claim 25, further comprising prioritizing transmission test signals associated with a highest achievable data rate (The access server which is a part of the base station receives the R

slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or method for assigning highest priority to a transmission data signal with a highest achievable rate per col. 9 lines 9-67) as claimed in **Claim 26** and further comprising authorizing a transmission to a terminal unit associated with the highest achievable data rate (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or authorizing per col 9 lines 9-67) as claimed in **Claim 27** and further comprising authorizing a transmission to a terminal unit associated with a prioritized transmission test signal (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or authorizing a highest achievable rate per col 9 lines 9-67) as claimed in **Claim 28**

Hamalainen does not expressly call for: test signals but teaches data signals per col. 9 lines 9-67

It would have been obvious to one of ordinary skill in the art at the time of the invention to prioritize transmission of test signals based upon the knowledge of prioritizing a data signal because a test signal is a type of data signal.

Referring to **Claim 29**, Hamalainen et al. (U.S. Patent No.: 5,640,395) teaches: A method for scheduling transmissions in an interference-limited network (The specification defines interference-limited system as a cellular system per Pg 1 line 10. The system described in the reference is digital cellular system or interference limited network per col. 1 lines 7-11. The base station or device has an access server which schedules available time slots to a mobile unit based upon priorities defined in the R slot or request slot or method per col 9 lines 9-67) comprising:

Prioritizing transmission test signals based on achievable data rates(The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or device per col 9 lines 9-67

Hamalainen does not expressly call for: test signals but teaches data signals per col. 9 lines 9-67

It would have been obvious to one of ordinary skill in the art at the time of the invention to prioritize transmission of test signals based upon the knowledge of prioritizing a data signal because a test signal is a type of data signal.

Referring to **Claims 30, 31, & 32**, Hamalainen (U.S. Patent No.: 5,640, 395) teaches: The method as in claim 29, further comprising assigning a highest priority to a transmission test signal associated with a highest achievable data rate (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is

granted as many slots as are free or achievable data rate by the base station or method of assigning a highest priority data signal a highest achievable data rate per col. 9 lines 9-67) as claimed in **Claim 30** and further comprising authorizing a transmission to a terminal unit associated with the highest achievable data rate (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or method of authorizing transmission of a highest priority data signal a highest achievable data rate per col. 9 lines 9-67) as claimed in **Claim 31** and further comprising authorizing a transmission to a terminal unit associated with a prioritized transmission test signal (The access server which is a part of the base station receives the R slot request for bandwidth from the mobile. The mobile station is granted as many slots as are free or achievable data rate by the base station or method of authorizing transmission to a terminal unit with a prioritized data signal per col. 9 lines 9-67) as claimed in **Claim 32**.

Hamalainen does not expressly call for: test signals but teaches data signals per col. 9 lines 9-67

It would have been obvious to one of ordinary skill in the art at the time of the invention to prioritize transmission of test signals based upon the knowledge of prioritizing a data signal because a test signal is a type of data signal.

Claim Rejections - 35 USC § 112

16.0 The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-18 are rejected relative to 112/1st paragraph as being indefinite because they are based upon a single means claim.

Referring to Claims 1 and 13, Both claims are single means claims with no transition language.

Claims 2-12 and 14-18 are rejected because they depend upon either Claim 1 or 13.

Conclusion

17.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 703/305-4102. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Robert W. Wilson

Robert W Wilson
Examiner
Art Unit 2661

RWW
November 28, 2003

RWW